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WE CLAIM:

1. A wire rope reeving support system for a cargo container handling crane having a cargo transport trolley mounted for reciprocation along a horizontal gantry thereof and for suspending a load thereunder, said crane having a fleet through wire rope load hoisting system for said transport trolley driven from a remote location on said crane, said rope support system of the present invention comprising

at least two pairs of bellcranks and push rods secured in opposed relation to the opposite longitudinal edges of said gantry intermediate the ends thereof, said bellcranks being pivoted at their respective first ends to said gantry with the opposite ends thereof each having at least one wire rope support roller rotatably engaged therewith and formed to project under and support said adjacent portion of said wire ropes of said wire rope load hoisting system when said bellcranks are oriented in a first resting position and said rollers being formed to retract from under said wires and project clear of said trolley when said bellcranks are oriented in a second actuated position,

said push rods being contained in vertical tracks which are secured to the opposite longitudinal edges of said gantry adjacent to said bellcranks and said rods being formed for reciprocation in said tracks,

connecting rods for each of said bellcrank and push rod pairs, said rods having a first end journaled to said push rods and the opposite end thereof journaled to said bellcranks intermediate the ends thereof between said pivoted ends of said bellcranks and said roller engagements therewith,

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at least a pair of push rod actuators secured to said trolley and aligned with the lower ends of said push rods whereby as said trolley passes said push rod locations during reciprocation of said trolley along said gantry, said push rod actuators actuate said lower ends of said rods to reciprocate vertically upward from said first position orientation in response to longitudinal movement of said actuators whereby the upper ends of said push rods, being individually interconnected by said connecting rods to said bellcranks intermediate to the ends thereof, move said connecting rods and thereby said bellcranks to said second actuated position orientation when said push rods are at their raised positions, whereby said support rollers are retracted clear of said trolley to let said trolley pass without mechanical interference with said rope support rollers, and said push rods lower said bellcranks by means of said connecting rods to said first resting position when said actuators are out of contact with said push rods whereby said support rollers project under and support the adjacent wire ropes.

2. The wire rope reeving support system of claim 1 including
at least two pairs of elongated cam surfaces mounted in end to end alignment on opposite longitudinal edges of said crane gantry and disposed in opposed relation across from each other, the adjacent ends of each pair thereof being interconnected and journalled to the lower ends of said push rods, said cam surfaces being journalled at the opposite outboard ends thereof to said gantry whereby said adjacent ends of said cam surfaces

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reciprocate vertically in unison and said push rod actuators contact said cam surfaces as said trolley traverses the positions of said cam surfaces.

3. The wire rope reeving support system of claim 2 wherein said crane gantry is comprised of two parallel elongated girders and said load suspended from said cargo transport trolley is suspended therebetween and said two pairs of push rods, bellcranks, connecting rods, and cam surfaces are mounted on the opposing interior walls of said girders.

4. The wire rope reeving support system of claim 3 wherein said two pairs of push rods, bellcranks, connecting rods, and cam surfaces are located near mid span of said gantry.

5. The wire rope reeving support system of claim 3 wherein said gantry includes multiple pairs of push rods, bellcranks, connecting rods, and cam surfaces, which are mounted in spaced apart relation intermediate the ends of said gantry.

6. The wire rope reeving support system of claim 3 wherein said bellcranks have at least two wire rope rollers rotatably engaged therewith for supporting both load hoist and trolley drive wire rope reeving.

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7. The wire rope reeving support system for a cargo container handling crane having a cargo transport trolley mounted for reciprocation along a horizontal gantry thereof and for suspending a load thereunder, said crane having a fleet through wire rope load hoisting system for said transport trolley driven from a remote location on said crane, said rope support system of the present invention comprising

at least two pairs of bellcranks and push rods secured in opposed relation to the opposite longitudinal edges of said gantry intermediate the ends thereof, said bellcranks being pivoted at their respective first ends to said gantry with the opposite ends thereof each having at least one wire rope support roller rotatably engaged therewith and formed to project under and support said adjacent portion of said wire ropes of said wire rope load hoisting system when said bellcranks are oriented in a first resting position and said rollers being formed to retract from under said wires and project clear of said trolley when said bellcranks are oriented in a second actuated position,

said push rods being contained in vertical tracks which are secured to the opposite longitudinal edges of said gantry adjacent to said bellcranks and said rods being formed for reciprocation in said tracks,

connecting rods for each of said bellcrank and push rod pairs, said rods having a first end journalled to said push rods and the opposite end thereof journalled to said bellcranks intermediate the ends thereof between said pivoted ends of said bellcranks and said roller engagements therewith,

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at least two pairs of elongated cam surfaces mounted in end to end alignment on opposite longitudinal edges of said crane gantry and disposed in opposed relation across from each other, the adjacent ends of each pair thereof being interconnected and journalled to the lower ends of said push rods, said cam surfaces being journalled at the opposite outboard ends thereof to said gantry whereby said adjacent ends of said cam surfaces reciprocate vertically in unison, and.

at least a pair of cam surface actuators secured to said trolley and aligned with said cam surfaces whereby as said trolley passes said cam surface locations during reciprocation of said trolley along said gantry, said actuators raise said cam surfaces to reciprocate the lower ends of said push rods vertically upward from said first position orientation in response to longitudinal movement of said actuators whereby the upper ends of said push rods, being individually interconnected by said connecting rods to said bellcranks intermediate to the ends thereof, move said connecting rods and thereby said bellcranks to said second actuated position orientation when said push rods are at their raised positions, whereby said support rollers are retracted clear of said trolley to let said trolley pass without mechanical interference with said rope support rollers, and said push rods lower said bellcranks by means of said connecting rods to said first resting position when said actuators are out of contact with said cam surfaces whereby said support rollers project under and support the adjacent wire ropes.

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8. A method for supporting the wire rope reeving for a cargo container handling crane having a cargo transport trolley mounted for reciprocation along a horizontal gantry thereof and for suspending a load thereunder, said crane having at least a fleet through wire rope load hoisting system for suspending a cargo container headblock from said transport trolley, the steps comprising

providing a pair of wire support rollers in opposing positions on opposite longitudinal edges of said crane gantry, said rollers projecting under those portions of the wire ropes of said wire rope load hoisting system which are disposed proximate to said edges, said rollers each being mounted on one end of a bellcrank pivoted at the other end thereof to structure engaged with said gantry, said bellcranks being actuated by push rods through connecting rods secured between said bellcranks and said push rods,

providing push rod actuators on said transport trolley arranged to reciprocate said push rods vertically whereby as said push rods are raised by said actuators said rollers are retracted from under said wires, and when said push rods are lowered by being out of contact with said actuators, said rollers are interposed under said wires, and

moving said trolley back and forth along said gantry past the position of the support rollers on said gantry to actuate said push rods to insert and remove said support rollers from under said wire ropes.

9. The method of claim 3 wherein at least two pairs of elongated cam surfaces are provided secured to opposite longitudinal edges of said gantry to provide a controlled

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reciprocation of said push rods when said push rod actuators reciprocate said cam surfaces vertically when said trolley is passing said surfaces.